VARIOUS.

NEW DECORATIVE MATERIAL.

Waltz of Pforzheim and Kreittmayer, modeller to the National Museum at Munich, have devised a mineral composition which serves as a substitute for plaster, cement, and such-like substances and for various decorative purposes, and is very highly commended. The components are not given; but the material is described as very fine in the grain, very plastic, and admirably adapted for taking casts, models, &c. It sets evenly and quickly, acquiring a hardness equal to that of cement; is perfectly uninflammable; and takes well on stone, cement, glass, and terra-cotta, and also upon paper and wood. It moreover possesses another highly desirable qualification — a dazzling whiteness.

It is well suited for many purposes of monochromatic decoration, in place of paint or plaster; and its hardness and uninflammability have suggested its use for shot-proof defences. Experiments in connection with the latter are stated to have given highly satisfactory results.

The Practical Magazine from Industrie-Blätter.

SHELL-JEWELLERY.

Australian papers state that a great demand now exists at Sydney for a small bibalve shell, a *trigonia,* which abounds in that harbour. The shells are mounted as brooches, earrings, and other articles of jewellery. The halves are hinged on gold bodies to represent butterflies, beetles, and the like. The shells have a deep violet, nacreous tint, and the effect produced is said to be extremely beautiful.

GILDING ON GLASS.

According to G. H. G. in the *Building News,* this is done by painting the part to be gilded with boiled linseed oil, in which a little copal or umber has been dissolved, tempered by spirits of turpentine. This coating is allowed to dry, and the glass is heated in an oven till the varnish becomes adhesive upon which the goldleaf is placed; it may be afterwards burnished. A better method is by painting the glass with a mixture of borax and gold powder dissolved in water. After the gilded design has been painted on, subject the glass to a high temperature in an oven. The borax and gold vitrifies and becomes fused to the glass.

TO MAKE GOLD AND SILVER INKS.

Good bright gold, silver, and bronze inks are seldom met in the market; they are almost always of a dull colour, do not flow easily from the pen, and the writing remains sticky. Hence architects and artists mostly prefer to use shell gold and shell silver *(Muschel-Silber),* instead of the corresponding ink. The latter, however, is so much easier and safer to use, that I will describe its preparation.

For gold ink it is best to employ genuine gold leaf, but owing to the expense this is seldom used; sometimes mosaic gold (sulphide of tin) or iodide of lead is employed, but almost always Dutch leaf.

Owing to the relatively low price of silver, genuine silver foil is used for silver ink; false silver foil is seldom used, and is not so good. For other metallic inks, commercial bronze powders are employed. The genuine and false foils are also sold in a finely pulverized state; they are made from the waste of the gold beaters by rubbing it, in metallic sieves, to an impalpable powder.

In consequence of the beating between gold beaters' skin, it has particles of grease and other impurities attached to it, which must be removed before it can be used for ink. For this purpose the whole sheets, or the commercial bronze powder, are triturated with a little honey to a thin magma on a glass or porphyry plate with a pestle, as carefully as possible, as the beauty of the ink depends essentially on this. The finely rubbed paste is rinsed into a thin glass beaker, boiled for a long time with water containing a little alkali, frequently stirred, decanted, well washed with hot water, and dried at a gentle heat. By boiling this powder with water containing sulphuric, nitric, or hydrochloric acid, different shades can be imparted to it.

Next, a solution of 1 part of white gum arabic in 4 parts of distilled water is mixed with 1 part of potash water glass, and triturated with the requisite quantity of purified metallic powder. Gold ink will bear more liquid than silver ink, since gold covers much better; on rough paper more metal is necessary than on sized paper; on light paper more than on dark, to make the colour of the ink appear equally intense.

In general, 1 part of foil is enough for 3 or 4 parts of the above liquid. In preparing large quantities of ink, a low porcelain measure is used for transferring it to the small glass vessels where it is to be kept, and it must be continually and thoroughly stirred, so that it will always keep well mixed. It requires frequent stirring also when in use. It is best to mix the dry powder with the liquid immediately before using. The ink can be used with a common steel pen, and flows very well when writing slowly, but it is better to use a pencil.

I consider the use of potash water glass of great importance. It greatly increases the metallic lustre on paper, prevents its looking dead, protects the writing from being discoloured by the action of the atmosphere, and also prevents its penetrating too far into the pores of the paper, without rendering it very viscid. Although the writing of itself possesses a high metallic lustre, it may be increased by gently polishing with a polishing steel. Inks made with mosaic gold, mosaic silver, iodide of lead, &c., are not nearly so beautiful.

C. H. Viedt in the Practical Magazine.

IMITATION MARBLE.

Pichler, gilder and decorator, of Vienna, communicates the following simple method of preparing imitation marble for all sorts of decorative purposes. Mix 1 lb. finely powdered lime into a thick paste with water, and add ½ lb. of colaphane, or, what is better, Venice turpentine. Allow the mixture to stand for some time, and then work up with it suitable quantities of fine white chalk and various coloured earths, adding a few drops of olive oil if necessary. A soft mass is thus obtained, which can be moulded, like plaster of Paris, to any desired form, or it can be rolled out on a warm metal plate, or pressed under wooden rollers, into thin sheets, which can be glued to the surface to be decorated, like ordinary veneers, and left to harden. It hardens and takes a good surface. Any cavities that appear must be filled up with some of the composition mixed with oil of turpentine. The composition will keep fit for use for some time, if covered up with a damp cloth while moist.

STAINING IN IMITATION OF MAHOGANY.

Soak 1 lb. of stick varnish in 2 quarts of water until all the colour is dissolved out; strain off the water, and add to the residue 2½ loths of powdered madder. Set the mixture over the fire until it is reduced to three-fourths of its original volume. Then mix together 2½ loths of cochineal, 2½ loths Kermes berries, 1 pint of spirits of wine, and ½ oz. of pearlash, out of which the colour has been washed by soaking in a gill of soft water. Add this mixture to the decoction of madder and varnish, stirring well together, and adding so much aqua fortis as will bring the red to the desired shade.

The Practical Magazine of Gewerbehalle.